

**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently amended) A system for preparing a lighting sequence, comprising:  
a display interface adapted to display first information representative of a plurality of lighting effects; and  
a processor coupled to the display interface and supporting a sequence authoring interface adapted to permit a user to select at least one lighting effect and at least one lighting unit to execute the at least one selected lighting effect, based on the displayed first information,  
wherein the display interface is adapted to display a grid, wherein the at least one lighting unit is represented at a first position along a first axis of the grid, wherein at least one continuous time interval is represented along a second axis of the grid, and wherein a representation of the at least one selected lighting effect during the at least one continuous time interval is displayed on the grid adjacent to the first position and parallel to the second axis.
2. (Original) The system of claim 1, wherein:  
the sequence authoring interface is adapted to receive second information representative of an arrangement of a plurality of lighting units, and  
the display interface is adapted to visually display a first representation of the arrangement of the plurality of lighting units based on the received second information.
3. (Original) The system of claim 2, wherein the display interface is adapted to display a second representation of the at least one selected lighting effect, based on the first representation of the arrangement of the plurality of lighting units, upon execution of the lighting sequence.
4. (Canceled)

5. (Original) The system of claim 1, wherein the at least one lighting unit includes at least one LED lighting unit capable of emitting light of any of a range of different colors, and wherein the sequence authoring interface is adapted to permit the user to select at least one color of the light emitted by the at least one LED lighting unit.
6. (Canceled)
7. (Currently amended) The system of claim 1 6, wherein the display interface is adapted to visually represent the at least one selected lighting effect on a region of the grid defined by the at least one lighting unit.
8. (Original) The system of claim 1, wherein the sequence authoring interface is adapted to store user selections on at least one storage medium.
9. (Original) The system of claim 1, wherein the sequence authoring interface is adapted to permit the user to select at least one color for the at least one selected lighting effect.
10. (Original) The system of claim 1, wherein the sequence authoring interface is adapted to permit the user to select a starting color and an ending color for the at least one selected lighting effect.
11. (Original) The system of claim 1, wherein the sequence authoring interface is adapted to permit the user to select a transition effect for a transition between a first lighting effect and a second lighting effect.
12. (Original) The system of claim 1, wherein the sequence authoring interface is adapted to permit the user to specify a priority for a first lighting effect which shares a temporal overlap with a second lighting effect.

13. (Currently amended) The system of claim 1, wherein the sequence authoring interface is adapted to permit the user to specify ~~specify~~ a brightness for the at least one selected lighting effect.

14. (Currently amended) The system of claim 1, wherein the sequence authoring interface is adapted to permit the user to provide instructions to execute ~~and optionally alter~~ the at least one selected lighting effect based upon at least one external stimulus.

15. (Original) The system of claim 1, wherein the sequence authoring interface is adapted to permit the user to specify a motion of the at least one selected lighting unit.

16. (Original) The system of claim 1, wherein the sequence authoring interface is adapted to permit the user to design at least one user-composed lighting effect, and wherein the display interface is adapted to display information representative of the at least one user-composed lighting effect.

17. (Currently amended) A method for preparing a lighting sequence capable of being executed by a controller, comprising acts of:

- displaying first information representative of a plurality of lighting effects;
- selecting at least one lighting effect for the lighting sequence, based on the displayed first information; ~~and~~
- selecting at least one lighting unit to execute the at least one selected lighting effect; and
- displaying a grid, wherein the at least one lighting unit is represented at a first position along a first axis of the grid, wherein at least one continuous time interval is represented along a second axis of the grid, and wherein a representation of the at least one selected lighting effect during the at least one continuous time interval is displayed on the grid adjacent to the first position and parallel to the second axis.

18. (Original) The method of claim 17, further comprising acts of:

receiving second information representative of an arrangement of a plurality of lighting units, and

displaying a first representation of the arrangement of the plurality of lighting units based on the received second information.

19. (Original) The method of claim 18, further comprising an act of visually representing the at least one selected lighting effect, based on the first representation of the arrangement of the plurality of lighting units, upon execution of the lighting sequence.

20. (Original) The method of claim 17, further comprising an act of:  
selecting a second lighting unit; and  
selecting one of the at least one selected lighting effect and another lighting effect for execution by the second lighting unit.

21. (Canceled)

22. (Currently amended) The method of claim 17 ~~21~~, further comprising an act of visually representing the at least one selected lighting effect on a region of the grid defined by the at least one lighting unit.

23. (Original) The method of claim 22, further comprising an act of storing user selections on at least one storage medium.

24. (Original) The method of claim 17, further comprising an act of selecting at least one color for the at least one selected lighting effect.

25. (Original) The method of claim 17, wherein the at least one selected lighting effect includes a first lighting effect associated with the at least one lighting unit, and wherein the method further comprises acts of:

selecting a second lighting effect for the lighting sequence, based on the displayed first information.

26. (Original) The method of claim 25, further comprising an act of selecting a transition effect between the first lighting effect and the second lighting effect.

27. (Original) The method of claim 25, further comprising an act of determining a priority for multiple selected lighting effects.

28. (Original) The method of claim 17, further comprising an act of specifying a brightness for the at least one selected lighting effect.

29. (Original) The method of claim 17, wherein the act of selecting at least one lighting unit to execute the at least one selected lighting effect includes an act of selecting a plurality of lighting units to execute the at least one selected lighting effect.

30. (Original) The method of claim 17, wherein the act of selecting at least one lighting unit to execute the at least one selected lighting effect includes an act of selecting at least one LED lighting unit capable of emitting light of any of a range of colors.

31. (Currently amended) The method of claim 17, further comprising an act of providing instructions to execute ~~and optionally alter~~ the at least one selected lighting effect based upon at least one external stimulus.

32. (Canceled)

33. (Original) The method of claim 17, further comprising an act of specifying a motion of the at least one selected lighting unit.

34-77. (Canceled)

78. (Original) The system of claim 1, wherein the sequence authoring interface is adapted to permit the user to select a start time for the at least one selected lighting effect and a stop time for the at least one selected lighting effect.

79. (Original) The system of claim 1, further comprising a controller coupled to the processor and adapted to execute the lighting sequence so as to control the at least one lighting unit.

80. (Original) The system of claim 79, wherein the controller includes at least one storage medium to store the lighting sequence in a data format that represents a data stream capable of directly controlling the at least one lighting unit.

81. (Original) The system of claim 79, in combination with the at least one lighting unit, wherein the at least one lighting unit is coupled to the controller.

82. (Original) The combination of claim 81, wherein the at least one lighting unit includes at least one LED lighting unit capable of emitting light of any of a range of different colors.

83. (Currently Amended) A system for preparing and executing at least one lighting sequence, comprising:

- a display interface adapted to display information representative of a plurality of lighting effects;

- a processor coupled to the display interface and supporting a sequence authoring interface adapted to permit a user to select at least one lighting effect and at least one lighting unit to execute the at least one selected lighting effect, based on the displayed information; and

- a controller coupled to the processor and adapted to execute the lighting sequence so as to control the at least one lighting unit,

- wherein the display interface is adapted to display a grid, wherein the at least one lighting unit is represented at a first position along a first axis of the grid, wherein at least one continuous

time interval is represented along a second axis of the grid, and wherein a representation of the at least one selected lighting effect during the at least one continuous time interval is displayed on the grid adjacent to the first position and parallel to the second axis.

84. (Original) The system of claim 83, wherein the controller is disposed within the processor.
85. (Original) The system of claim 83, wherein the controller is a separate unit from the processor.
86. (Original) The system of claim 83, in combination with the at least one lighting unit.
87. (Original) The method of claim 17, further comprising acts of:  
selecting a start time for the at least one selected lighting effect; and  
selecting a stop time for the at least one selected lighting effect.
88. (Original) The method of claim 17, further comprising an act of executing the lighting sequence so as to control the at least one lighting unit.
89. (Original) The method of claim 17, further comprising an act of storing the lighting sequence in a data format that represents a data stream capable of directly controlling the at least one lighting unit.
90. (Original) At least one computer readable medium encoded with at least one program that, when executed, performs the method of claim 17.
91. (Original) At least one computer readable medium encoded with at least one program that, when executed, performs the method of claim 21.

92. (Currently amended) A method for preparing and executing at least one lighting sequence, comprising acts of:

displaying information representative of a plurality of lighting effects;

selecting at least one lighting effect for the at least one lighting sequence, based on the displayed information;

selecting at least one lighting unit to execute the at least one selected lighting effect; and

executing the at least one lighting sequence so as to control the at least one lighting unit;

and

displaying a grid, wherein the at least one lighting unit is represented at a first position along a first axis of the grid, wherein at least one continuous time interval is represented along a second axis of the grid, and wherein a representation of the at least one selected lighting effect during the at least one continuous time interval is displayed on the grid adjacent to the first position and parallel to the second axis.

93-106. (Canceled)

107. (New) The system of claim 14, wherein the sequence authoring interface is adapted to alter the at least one selected lighting effect based upon at least one external stimulus.

108. (New) The method of claim 31, further comprising an act of altering the at least one selected lighting effect based upon at least one external stimulus.

109. (New) A system for preparing a lighting sequence, comprising:

a display interface adapted to display first information representative of a plurality of lighting effects; and

a processor coupled to the display interface and supporting a sequence authoring interface adapted to permit a user to select at least one lighting effect and at least one lighting unit to execute the at least one selected lighting effect, based on the displayed first information,

wherein the at least one lighting unit includes at least one LED lighting unit capable of emitting light of a first color and light of a second color, and mixing the light of the first color



and the light of the second color, so as to emit a light output of any of a range of different colors during execution of the at least one lighting effect.

110. (New) The system of claim 109, further comprising the at least one lighting unit.

111. (New) The system of claim 109, wherein the sequence authoring interface is adapted to permit the user to select an initial color of the light output emitted by the at least one LED lighting unit.

112. (New) The system of claim 111, wherein the sequence authoring interface is adapted to permit the user to select a final color of the light output emitted by the at least one LED lighting unit.

113. (New) The system of claim 112, wherein the sequence authoring interface is adapted to permit the user to select a rate of change of color of the light output emitted by the at least one LED lighting unit.

114. (New) The system of claim 109, wherein the sequence authoring interface is adapted to permit the user to provide instructions to alter the at least one color of the light output based upon at least one external stimulus.

115. (New) A system for preparing a lighting sequence, comprising:

a display interface adapted to display first information representative of a plurality of lighting effects; and

a processor coupled to the display interface and supporting a sequence authoring interface adapted to permit a user to select at least one lighting effect and at least one lighting unit to execute the at least one selected lighting effect, based on the displayed first information,

wherein the sequence authoring interface is adapted to permit the user to select a starting color to be displayed by the lighting unit at a first time and an ending color to be displayed by the lighting unit at a second time for the at least one selected lighting effect.

116. (New) A system for preparing a lighting sequence, comprising:

a display interface adapted to display first information representative of a plurality of lighting effects; and

a processor coupled to the display interface and supporting a sequence authoring interface adapted to permit a user to select at least one dynamic lighting effect and at least one lighting unit to execute the at least one selected dynamic lighting effect, based on the displayed first information,

wherein the sequence authoring interface is adapted to permit the user to select a transition effect for a transition between a first dynamic lighting effect and a second dynamic lighting effect.

117. (New) A system for preparing a lighting sequence, comprising:

a display interface adapted to display first information representative of a plurality of lighting effects; and

a processor coupled to the display interface and supporting a sequence authoring interface adapted to permit a user to select at least one lighting effect and at least one lighting unit to execute the at least one selected lighting effect, based on the displayed first information,

wherein the sequence authoring interface is adapted to permit the user to specify a priority for a first lighting effect to be displayed which shares a temporal overlap with a second lighting effect.

118. (New) The system of claim 117, wherein the priority is dependent on a cue received by the system.

119. (New) The system of claim 118, wherein the sequence authoring interface is configured such that the priority is a default priority that is replaced by a substitute priority upon receipt of the cue.

120. (New) The system of claim 117, wherein the at least one lighting effect comprises multiple lighting effects having the same priority and an output from the processor is selected to be a combination of the multiple lighting effects.
121. (New) A system for preparing a lighting sequence, comprising:  
a display interface adapted to display first information representative of a plurality of lighting effects; and  
a processor coupled to the display interface and supporting a sequence authoring interface adapted to permit a user to select at least one lighting effect and at least one lighting unit to execute the at least one selected lighting effect, based on the displayed first information, wherein the sequence authoring interface is adapted to permit the user to provide instructions to alter an execution of the at least one selected lighting effect based upon at least one non-human, external stimulus.
122. (New) The system of claim 121, wherein the stimulus is a sound.
123. (New) The system of claim 122, wherein the stimulus is a volume of the sound.
124. (New) The system of claim 122, wherein the stimulus is a pitch of the sound.
125. (New) The system of claim 117, wherein the stimulus is a temperature.
126. (New) The system of claim 117, wherein the stimulus is light.
127. (New) The system of claim 126, wherein the stimulus is a brightness of the light.
128. (New) The system of claim 126, wherein the stimulus is a color of the light.